

NEW SPECIES OF DIPLURA (INSECTA APTERYGOTA)
FROM AUSTRALIA AND NEW GUINEA

By H. WOMERSLEY, South Australian Museum

[Read 9 August 1945]

Family PROJAPYGIDAE

Genus SYMPHYLURINUS Silvestri 1936

Boll. Lab. Zool., Portici., 30, 52, 1936.

Symphylurinus swani n. sp.

Fig. 1

Description—Colour, creamy-white. Head above with medium and short setae, occiput with 5 medium setae on each side, anterior of transverse suture with 3 + 3 medium setae, behind antennae bases with 3 + 3, between antennae bases 1 median and medium in length, on clypeus with one long median and 1 + 1 shorter latero-medial setae; antennae 23-segmented, with the setae and sensillae as in the genus (see Silvestri 1936).

Thorax: pronotum with 4 + 4 macrochaetae furnished with 1-2 short indistinct subapical barbs, one submedian subanterior and slightly shorter than length of pronotum, one lateral slightly longer than pronotum and 2 + 2 subposterior slightly shorter than pronotum, otherwise pronotum with many short setae; mesonotum with 9 + 9 macrochaetae, 2 + 2 subanterior, 2 + 2 transversely submedian, 1 + 1 lateral and 3 + 3 posterior of which the laterals are slightly longer than the sublaterals, all with 1-3 subapical barbs; metanotum with 5 + 5 macrochaetae of which 3 + 3 are subposterior, otherwise as in mesonotum; praesternum with 2 + 2 medium barbed setae, fork of sternum with 1 + 1, several lateral, 1 + 1 transverse median and 1 + 1 subposterior macrochaetae, all long and with 1-3 barbs.

Legs: tibiae of I with strigulae of 4 spatulate setae at apex; III, trochanter with 2 short ventral macrochaetae; femur with 3-4 dorsal, subanterior 1, inferior 2; tibia with short inferior macrochaetae; tarsi with numerous very short setae, praeapical dorsal setae short, praetarsal claws curved, unequal.

Abdomen: tergite I with 1 + 1 subanterior submedian macrochaetae and 1 + 1 posterior submedian with 1-2 barbs; II with 1 + 1 subanterior submedian, and 2 + 2 posterior; III with 2 + 2 subanterior and 3 + 3 posterior, IV-VII with 3 + 3 subanterior, 1 + 1 lateral and 4 + 4 posterior; VIII and IX with 4 + 4 posterior; X with 1 median long macrochaetae, and 5 + 5 shorter posterior macrochaetae; sternite I, macrochaetae 3 + 3 anterior, 1 + 1 lateral and 4 + 4 posterior, stylets rather more than half length of sternite (72μ), subcoxal appendage slightly longer than stylet (80μ) with ca. 8 short stout apical spines; II-VII macrochaetae 8 + 8, 2 + 2 subanterior, 6 + 6 posterior, stylets as in I; VIII macrochaetae 1 + 1 posterior submedian sublateral; IX macrochaetae 2 + 2 posterior and 2 laterals; X 2 + 2 macrochaetae and 10 + 10 shorter setae.

Cerci: 11-segmented, I short and annuliform, II-IV about one-third length of entire cerci together, each segment from I-IX with 2-transverse series of 6-setae, X and XI with 1 series.

Length 2.475 mm., width of head 0.48 mm., antennae 1.35 mm., leg III 0.9 mm., cerci 0.675 mm.

Loc.—A single female from under a stone, Atherton, North Queensland, 20 April 1945 (D. C. S.).

Remarks—The first record of *Symphylurinus* and of the Projapygidae from Australia. The genus was previously known only from India, China, West Africa and South America.

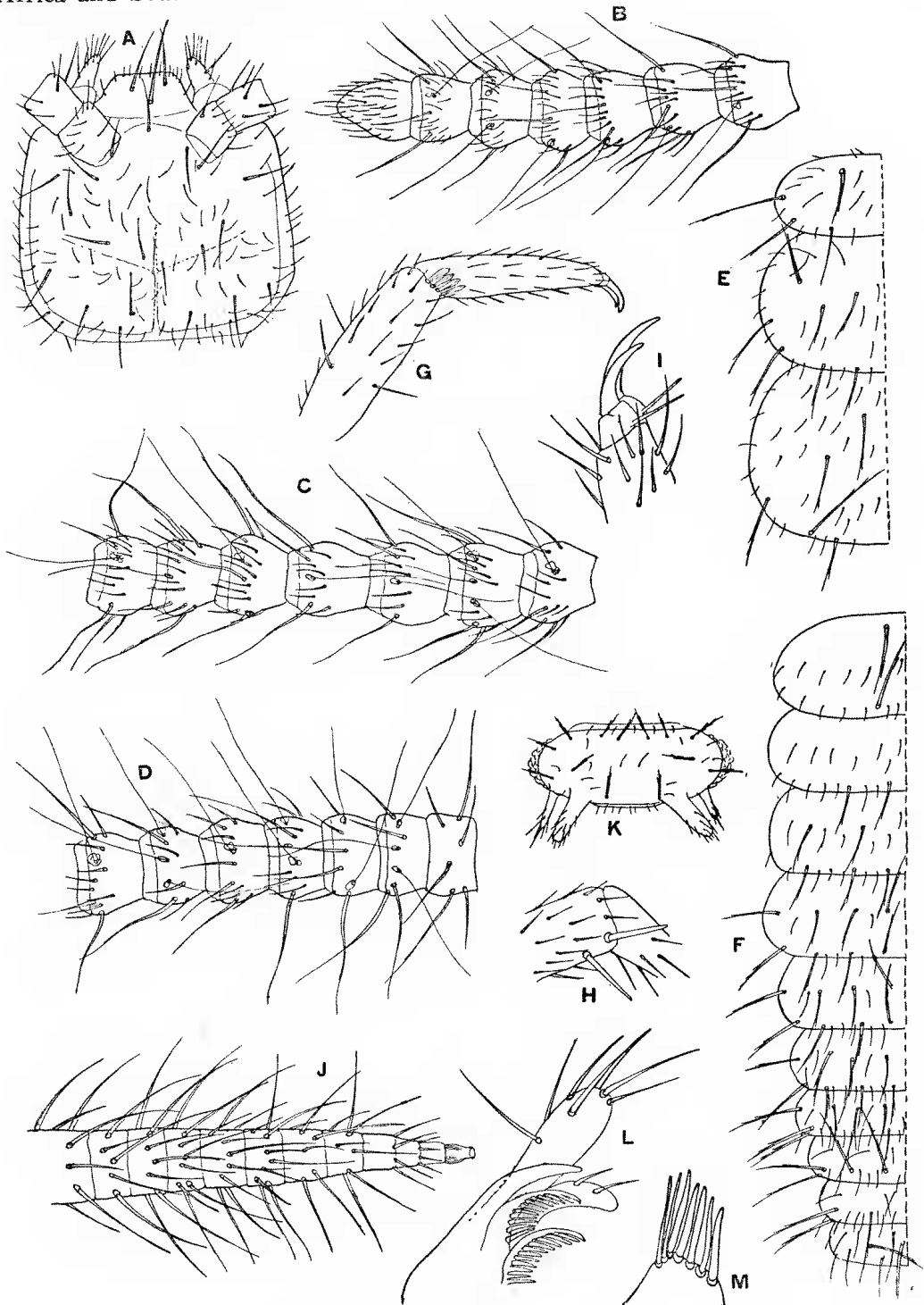


Fig. 1 *Symphylurinus swani* n. sp.

A, head in dorsal view; B, C, D, antennae in three sections B, apical, C, medial, D, basal; E, thoracic tergites; F, abdominal tergites; G, tibia and tarsi of leg I; H, apex of tibia III; I, tarsal claws leg I; J, cerci; K, urosternite I; L, maxilla; M, sensillae on submedian area of mentum.

Family JAPYGIDAE
 Subfamily PARAJAPYGINAE
 Genus PARAJAPYX Silv. 1903

Annu. Mus. Napoli (n.s.), 1, (7), 3, 1903.

Parajapyx queenslandica n. sp.

Fig. 2 A-B

Description—Colour, creamy-white except for the well-chitinised yellow Xth abdominal somite and the forceps. Head rather longer than wide, with ca. 18 + 18 short subequal setae, suture lines not evident. Eyes absent. Antennae

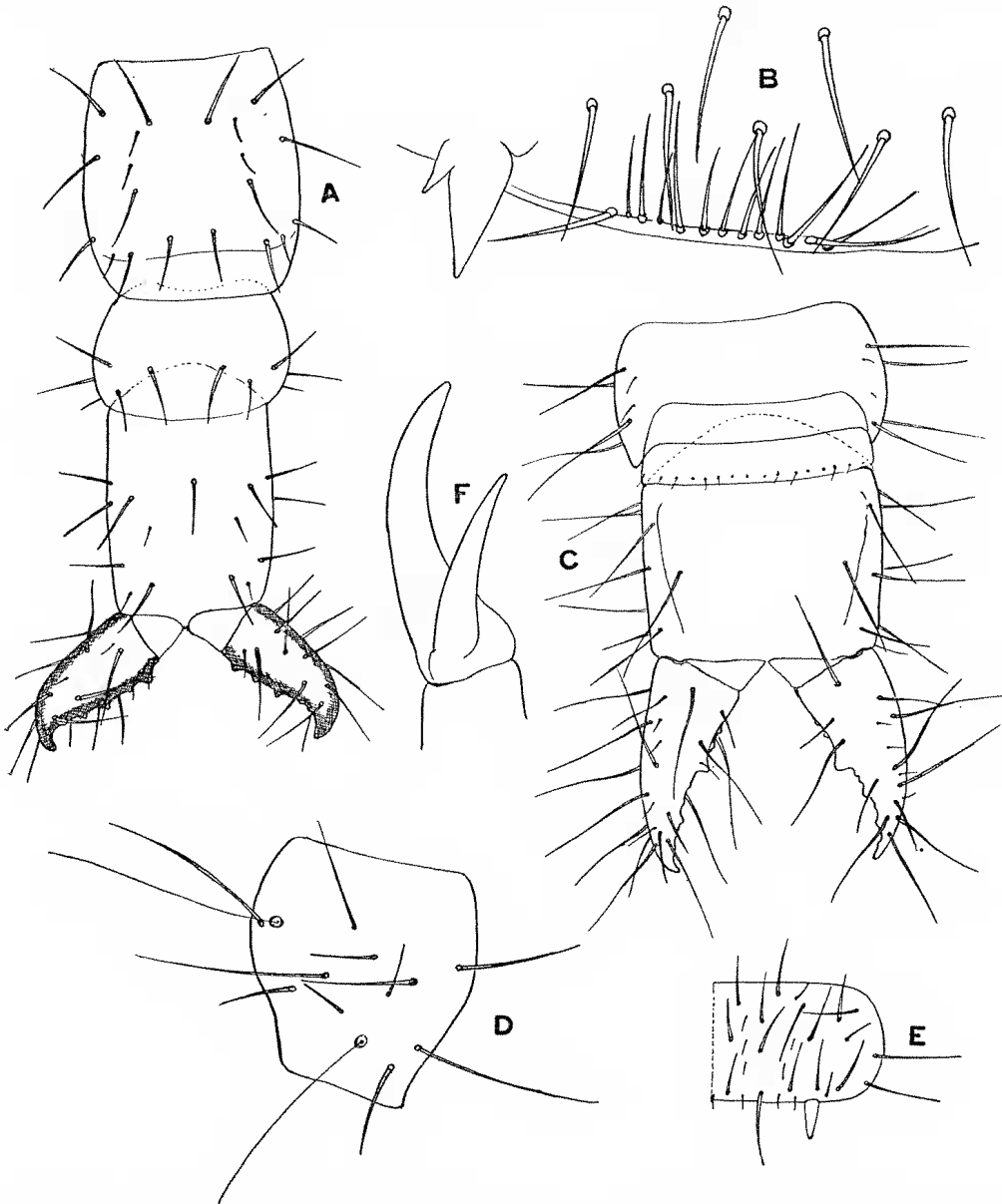


Fig. 2 A-B—*Parajapyx queenslandica* n. sp.: A, abdominal tergites VIII-X and forceps; B, subcoxal organ on urosternite I. *Indjapyx goodenoughensis* n. sp.: C, abdominal tergites VIII-X and forceps; D, antenna IV from above; E, right half urosternite V; F, claws of leg III.

18-segmented, entirely without sensillae. Labial palpi wanting. Mouth-parts as in the genus.

Thorax: pronotum with 6 + 6 short to longer setae, a median transverse row of 3 + 3, the laterals the longest, and a subposterior row of 3 + 3, the middle one on each side being the longest; mesonotum with 24 short and longer setae, 1 + 1 anteromedian, 4 + 4 longer with the outer the longest, then 2 + 2 short, followed by 3 + 3 short subposterior; metanotum with 26 short and longer setae, 2 + 2 antero-median, the inner members the longer, then 4 + 4 the outer the longest, then 2 + 2 short, then 4 + 4 longer, followed by 3 + 3 short and posterior; prosternum with 3 + 3 praesternal, then 3 + 3, then 1 median plus 1 + 1 furcal, then 2 + 2; mesosternum with 4 + 4, then 1 median plus 1 + 1 furcal, then 2 + 2 subposterior; metanotum 5 + 5 praesternal, then 1 median plus 1 + 1, then 4 + 4, then 1 median plus 1 + 1 furcal, then 2 + 2 subposterior.

Legs short, claws subequal with a pair of fine setae from the praetarsus.

Abdomen: tergites I-VII with four rows of short to longer setae; VIII with 11 + 11 setae, fairly long, 4 + 4 subanterior, the first and third on each side long, the others very short, 1 + 1 lateral long, 1 + 1 sublateral and very short, then 1 + 1 long submedian, then 4 + 4 subposterior, the third on each side very short; tergite IX much shorter than VIII or X with a subposterior row of 4 + 4 long setae; X and forceps as figured. Sternites I-VII with four transverse rows of 6-8 short setae, VIII with 8 + 8 short and longer setae, IX with 4 + 4 subposterior short and longer setae. All setae simple.

Sternites II and III with the usual large round paired vesicles.

Stylets (*cf.* fig. 2 B) small, conical and with a smaller outer accessory cone. Subcoxal organs on sternite I as figured.

Forceps symmetrical, as figured.

Loc.—Under stones, Edge Hill, Cairns, Queensland, 2 June 1945 (D. C. S.).

Remarks—Described from two specimens received from F./Lt. D. C. Swan. The paratype is a juvenile specimen of only 2100 μ in length.

This species is very different from the only other known species of *Parajapyx* from Australia (*P. swani* Wom. from South Australia) in the structure of the forceps.

Subfamily INDJAPYGINAE

Genus INDJAPYX Silv. 1930

Rec. Indian Museum 1930, 32, (4), 451.

Indjapyx goodenoughensis n. sp.

Fig. 2 C-F

Description—Colour yellowish, with somite IX, X and forceps somewhat deeper yellow. Head rounded, about as wide as it is long, dorsally with 9 + 9 long and strong simple macrochaetae and others shorter and still shorter; without the fine pubescence posteriorly as in many of the hitherto described species. Antennae 44-segmented, with sensillae only on segment IV to VI, the dorsal sensillae on IV placed subposteriorly as is characteristic of the genus. Thorax dorsally with long and short setae, the macrochaetae as follows: pronotum with 6 + 6, subanteriorly 2 + 2, sublaterally 2 + 2, and subposteriorly 2 + 2; mesonotum with 5 + 5, subanteriorly 2 + 2, laterally 1 + 1, subposteriorly 2 + 2; metanotum 5 + 5, subanteriorly 2 + 2, laterally 1 + 1, subposteriorly 2 + 2; ventrally on prosternum, praesternal 4 + 4 macrochaetae, then 1 median plus 4 + 4 subanterior, within the furca 4, then 1 + 1 lateral and 3 + 3 subposterior; meso- and metasterna similar.

Abdomen similarly with long and short macrochaetae; tergites I with 1 + 1 subposterior submedian and 1 + 1 subposterior macrochaetae; II-III with 4 + 4

lateral and 1 + 1 subposterior submedian; IV-VII with 4 + 4 laterally only, VIII with 1 + 1 lateral subposterior; IX and X as figured. Sternites furnished with more macrochaetae, I-VIII with from four to two rows of long and short setae. Sternites II-VII with long conical stylets as in fig. 2 E. Subcoxal organ on sternite I displaced in mount and details not available for description. Legs with

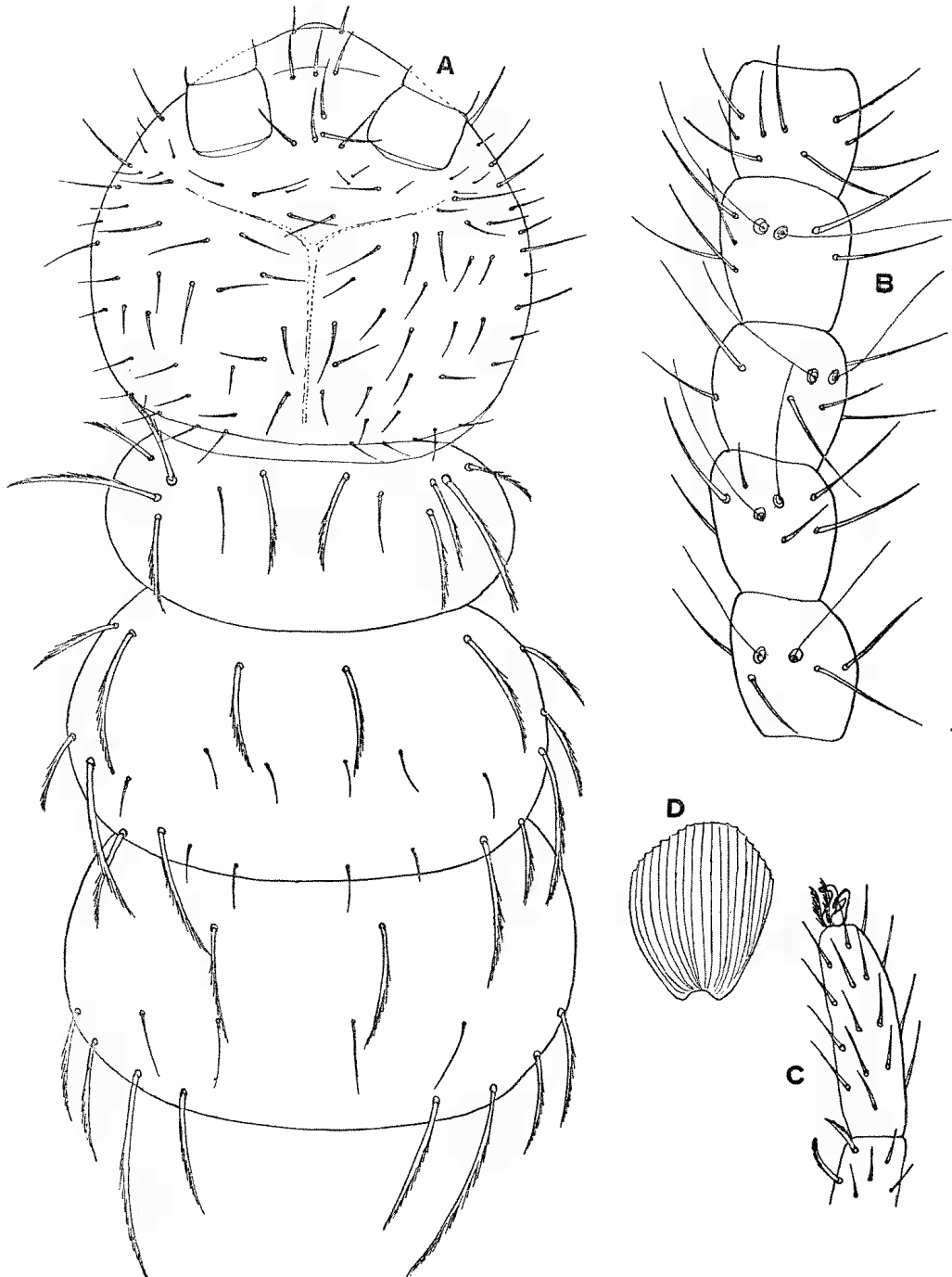


Fig. 3 *Lepidocampa weberi* Ouds.

A, head and thoracic tergites; B, antennal segments III-VII; C, tip of tibia, and tarsus of leg III; D, scale from abdominal tergites.

paired slightly unequal claws. Forceps as in figure, symmetrical. Tergites with the lateral apical angles rounded in I-VI, produced into a point in VII (*cf.* fig. 2 C).

Length 6.0 mm., antennae 3.1 mm., forceps 525 μ .

Loc.—A single specimen from Goodenough Island, New Guinea, collected by F./Lt. D. C. Swan, January 1944.

Remarks—In the subposterior position of the dorsal sensilla on antennae IV, and the proportions of somites VII-IX, this species comes into Silvestri's genus *Indjapyx*. It differs from most described species and varieties in lacking the pubescence on the posterior portion of the head, and in the number of antennal segments. Also the absence of all macrochaetae except laterals on tergites IV-VIII is remarkable, although in other species they are comparatively few, and only represented by one or two pairs.

Family CAMPODEIDAE

P. 228, between line 15 and 16 insert "LEPIDOCAMPA *cf.* WEBERI Ouds. 1890."

Colour, creamy-white. Length 2.4 mm. Antennae ca. 20-segmented. Cerci ca. 10-12 segmented. Head dorsally with long and short smooth setae, as figured. Pronotum with 1 + 1 anterior submedian macrochaetae strongly feathered, and 4 + 4 similar sublateral and subposterior macrochaetae, of which the second from the posterior angle is very long; mesonotum with 1 + 1 antero-submedian, 2 + 2 antero-lateral and sublateral, and 4 + 4 lateral and subposterior, the second from posterior the longest; metanotum with 1 + 1 antero-submedian, and 4 + 4 postero-sublateral, the second from posterior the longest. Abdominal tergite I without macrochaetae; II and III with 1 + 1 submedian, IV-VII with 3 + 3 subpostero-lateral; VIII and IX with 4 + 4 subpostero-lateral; X with many but number indeterminate. Cerci with whorls of long macrochaetae. Antennae also with whorls of macrochaetae and the usual sensillae on III-VI. Tarsi with paired claws and pulvilli.

Loc.—A single specimen from Goodenough Island, New Guinea, collected by F./Lt. D. C. Swan, January 1944.

Remarks—As the microscopic preparation is somewhat damaged it is not possible to completely describe or figure all necessary details of this specimen, but it is tentatively referred to Oudemans' species, which is known to be widely distributed in the Melanesian Region. The specimen also was preparing for an ecdysis, the setae of the next instar being visible and rendering the normal setal pattern rather difficult to make out.